

from the exchange or switch;

a transmitter for broadcasting, to the exchange or switch, a message transferred from the receiver, based on a transmission request;

a processor for sending a message received by the receiver to the transmitter and a transmission request to the transmitter when the processor determines the message is the address interrogation request, and for registering, in a memory, a corresponding relationship between a first address and second address included in a message received by the receiver when the processor determines the message is the answer.--

REMARKS

This amendment is being submitted prior to the issuance of an Office Action in the CPA application.

Claims 1, 2, 3, 6, 8, 11, 12, 14, 15, 40, 41, 42, 43, 44, 45-55 and 57 are now pending in the application.

Claims 4, 5, 9, 10 and 56 have been cancelled herein and new independent claim 57 has been added in the application.

Claims 1, 2, 3, 6, 8, 11, 12, 14, 15, 40, 41, 42, 45, 46, 47, 48, 49, 52, 53-54 have been herein amended to more clearly distinguish the present invention over the prior art cited by the Examiner.

Specifically, neither “Address Resolution Protocol” by Finn nor Mori ('026) even if taken in combination suggest subject matter of independent claims 1, 6, 8, 12, 40, 47, 49 as claimed and new claim 57.

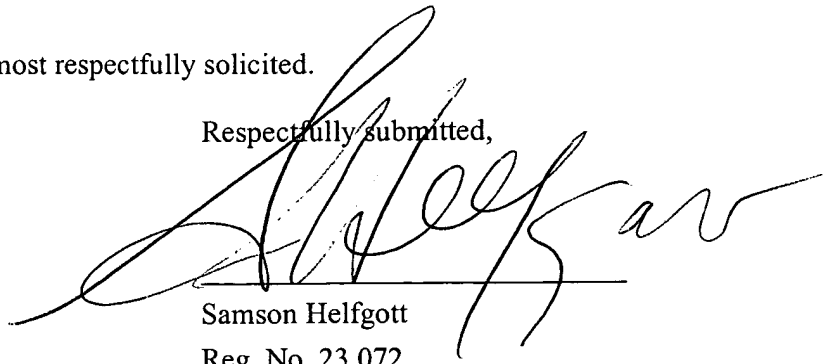
Claims 43, 44, 50, 51 and 55 have remained unchanged.

A Declaration of Inventor will follow.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Versions with markings to show changes made."

Favorable consideration is most respectfully solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'S. Helfgott', is written over a horizontal line. The signature is fluid and cursive.

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 1-3, 6, 8, 11-12, 14, 15, 40-42, 45-49 and 52-54 have been amended as

follows:

1.(twice amended) An address management method in a communication system equipped with a plurality of terminals, and a server for registering a corresponding relationship between a first address and a second address of each terminal, [and an exchange or switch which accommodates each terminal and the server,] the method comprising the steps of:

sending, to the server by an originating terminal, an address interrogation request which includes a first value indicative of a request and a first address;

[a first step in which the server transfers a terminal address interrogation request containing a first address] transferring, to a plurality of terminals [via] by the [exchange or switch] server, the address interrogation request which includes the first value and first address;

[a second step in which, when] receiving, by each terminal [receives] the [terminal] address interrogation request transferred from the server[.,];

[the terminal determines] determining by each terminal whether the first

address [contained] included in the address interrogation request received from the
server agrees with a terminal [its] own first address; [and notifies the server of an
answer including its own second address when agreement is achieved]

notifying, by each terminal, in response to the address interrogation request, the
server of an answer which includes a terminal own second address and a second value
indicative of an answer when agreement is achieved; [and]

[a third step in which the server receives the answer including the second
address corresponding to the first address] receiving, from one of the plurality of
terminals by the server, the answer which includes the second value and the second
address which corresponds to the first address; and

[registers] registering, in the server, a corresponding relationship between the
first address and the second address which [have been handled by the second step] is
included in the answer.

2.(twice amended) The method according to claim 1, in the communication system
which includes a switch or exchange which accommodates each terminal and the server,
wherein the [first] transferring step includes:

a step in which the exchange or switch connects the server with a plurality of

terminals by PVCs (permanent virtual channels); and

a step in which, when an [a terminal] address interrogation request having a predetermined value for a PVC has entered from the server, the exchange or switch performs cell copying, whereby the [terminal] address interrogation request cell is transferred to the plurality of terminals.

3.(twice amended) The method according to claim 1, in the communication system which includes a switch or exchange which accommodates each terminal and the server, wherein the [first] transferring step includes:

a step in which the exchange or switch connects the server with a plurality of terminals by PVCs (permanent virtual channels) and divides the plurality of terminals into a plurality of groups;

a step in which, when an [a terminal] address interrogation request having a predetermined value for a PVC has entered from the server, the exchange or switch performs cell copying, whereby the [terminal] address interrogation request cell is transferred to all terminals in a first group;

a step in which the server performs monitoring to determine whether a prescribed terminal has answered with a second address within a set period of time;

a step in which the server sends the interrogation request cell to the plurality of terminals of the next group if no terminal answers with a second address within the set period of time; and

a step in which the server transfers the [terminal] address interrogation request while successively changing the group until a prescribed terminal answers with a second address.

6.(twice amended) [The method according to claim 1, further] An address management method in a communication system equipped with a plurality of terminals, and a server for registering a corresponding relationship between a first address and a second address of each terminal, the method comprising the steps of:

sending, to the server by an originating terminal, an address interrogation request which includes a first value indicative of a request and a first address;

transferring, to a plurality of terminals by the server, the address interrogation request which includes the first value and first address;

receiving, by each terminal, the address interrogation request transferred from the server;

determining by each terminal whether the first address included in the address

interrogation request received from the server agrees with a terminal own first address:

notifying by the terminal, in response to the address interrogation request, the server of an answer which includes a terminal own second address and a second value indicative of an answer when agreement is achieved;

[a fourth step in which, when the server receives the answer including the second address from the one of the plurality of terminals, the server deletes a corresponding relationship, referred to least recently, between a first address and second address if the server can not accommodate a corresponding relationship between the first address and second address] receiving, from one of the plurality of terminals by the server, the answer which includes the second value and the second address which corresponds to the first address;

deleting a corresponding relationship, referred to least recently, between a first address and a second address if the server cannot accommodate a corresponding relationship between the first address and second address included in the answer received from a prescribed terminal; and

[a fifth step] registering, in [which] a memory by the server, [registers the] a corresponding relationship between the first address and the second address[, of] which [it has been notified,] is included in the [server] answer.

8.(twice amended) A communication system equipped with a plurality of terminals, and
a server for registering a corresponding relationship between a first address and second
address of each terminal, [and an exchange or switch which accommodates each
terminal and the server,] wherein

each of the terminals comprises:

means for sending, to the server, [a terminal] an address interrogation request
[to the server if the second address of another party's terminal is unknown at the time of
communication] which includes a first value indicative of a request and a first address;
and

[terminal address answering] means for answering the server with an answer
including its own second address and a second value indicative of an answer when a
first address, included [contained] in [a terminal] an address interrogation request
[transferred] which has been received from the server agrees with its own first address;
and

the server comprises:

means for transferring the [terminal] address interrogation request [containing]
which includes the first value and the first address to a plurality of terminals [via the

exchange or switch]; and

registration means for registering, in the server, a corresponding relationship between the first address[,] and the second address which is included in the answer which has been [answered] received from one of the plurality of terminals in response to the [terminal] address interrogation request which has been transferred from the server.

11.(twice amended) The communication system according to claim [10] 8, wherein when the server cannot register a corresponding relationship between the first address, and second address included in the answer which is received from the prescribed terminal, the registration means deletes a corresponding relationship, referred to least recently, between a first address and second address.

12.(twice amended) A server in a communication system equipped with a plurality of terminals, the server comprising:

interrogation means for [interrogating] receiving, from an originating terminal, an address interrogation request including a first value indicative of a request and a first address, and for transferring the address interrogation request to a plurality of

terminals[, via an exchange or switch, for the second address corresponding to this first address];

means for receiving an answer including [the] a second value indicative of an answer and a second address [corresponding] which corresponds to the first address, from one of the plurality of terminals in response to the [terminal] address interrogation request which has been transferred from the server; and

registration means for registering, in a memory, a corresponding relationship between the first address and the second address [, of which it has been notified, in a memory] which is included in the answer.

14.(twice amended) The server according to claim 12, wherein when the server receives [the] an answer including a second value indicative of an answer and [the] a second address from the one of the plurality of terminals, the registration means deletes a corresponding relationship, referred to least recently, if the server can not accommodate a corresponding relationship between the first address and second address, and registers, in a memory of the server, the corresponding relationship between the first address and the second address[, of which it has been notified, in the server] which is included in the answer.

15.(twice amended) The server according to claim 12, wherein the [terminal address] interrogation means divides a plurality of terminals into a plurality of groups, interrogates all terminals of a first group for a second address and, if notification of an answer including the second address is not received within a set period of time, interrogates all terminals of the next group for a second address.

40.(amended) In a network system having a server, the method comprising the steps of:

receiving, from an originating terminal by the server, a terminal address interrogation request including a first value indicative of a request and a first address;

transferring₁ by the server₁ [a] the terminal address interrogation request [including a first address] to a plurality of terminals;

receiving₁ by the server₁ an answer including a second value indicative of an answer and a second address [corresponding] which corresponds to the first address₁ from one of the plurality of terminals in response to the terminal address interrogation request which has been transferred by the server; and

registering₁ in the server₁ a corresponding relationship between the first address

and the second address which is included in the answer.

41.(amended) The method according to claim 40, wherein the corresponding relationship between the first address and the second address is registered in a vacancy which has been formed by deleting an entry [having] which has a corresponding relationship between a first address and a second address.

42.(amended) The method according to claim 41, wherein the vacancy is formed by deleting [the] an entry [having] which has the oldest reference time.

45.(twice amended) The method according to the claim 40, further comprising a step in which, when the server receives the answer including the second address and the second value from the one of the plurality of terminals, the server [stores] registers the corresponding relationship between the first address and the second address in place of a memory in the server designated by an index value which is calculated based on a value of the first address or the second address.

46.(amended) The method according to claim 40, further comprising a step in which

the server periodically receives a terminal address interrogation request including a second address and a second value indicative of an answer from each terminal of the plurality of terminals, whereby the corresponding relationship between the first address of its own terminal and the second address is kept in a server.

47.(amended) In a network system having a server, the method comprising the steps of:

receiving, from an originating terminal by the server, an address interrogation request including a first address and a first value indicative of a request;

transferring, by the server, the address interrogation request to a plurality of terminals;

receiving, [by the server an answer including a second address corresponding to a first address] from an originating terminal by the server, an answer including a second value indicative of an answer and second address which corresponds to a first address;

deleting, from the server, an entry which has a corresponding relationship between a first address and a second address from the server to form a vacancy when the server cannot register [the] a corresponding relationship between the first address and the second address [obtained from] which is included in the [receiving step] answer; and

registering in a vacancy of the server a corresponding relationship between the first address and the second address [obtained from] which is included in the [receiving step] answer.

48.(amended) The method according to claim 47, wherein the vacancy is formed by deleting the entry [having] which has the oldest reference time.

49.(amended) An address resolution system equipped with a plurality of terminals, a switch or exchange which accommodates each terminal of a plurality of terminals and a server, wherein

each terminal of the plurality of terminals comprises:

means for [answering the server with its own second address when] sending a terminal address interrogation request [including] which includes a first value indicative of a request and a first address [transferred from] to the server [agrees with its own first] if a second address of another party's terminal is unknown at the time of communication; and

means for answering the server with an answer including a terminal own second address and a second value indicative of an answer when a first address included in a

terminal address interrogation request received from the server agrees with a terminal
own first address; and

the server comprises:

means for transferring the terminal address interrogation request including the first
value indicative of the request and the first address to the plurality of terminals; and

receiving means for receiving, in response to the terminal address interrogation
request which has been transferred by the server, an answer including a second address
corresponding to the first address from one of the plurality of terminals;

means for registering in the server a corresponding relationship between the
first address and the second address which [have] has been [handled by] included in the
[receiving means] answer.

52.(amended) The address resolution system according to claim 49, wherein when
the server receives the answer including the second address corresponding to the first
address from the one of the plurality of terminals, the registration means deletes an
entry [having] which has a corresponding relationship between a first address and a
second address from the server when the server cannot accommodate an entry having a
corresponding relationship between the first address and the second address which are

included in the answer which has been received from the one of the plurality of terminals.

53.(amended) A server comprising:

means for receiving, from an originating terminal, an address interrogation request

including a first address and a first value indicative of a request;

means for transferring [a] the [terminal] address interrogation request

[including a first address] to a plurality of terminals;

means for receiving [a notification of] an answer including a second value

indicative of an answer and a second address [corresponding] which corresponds to the

first address from one of the plurality of terminals in response to the [terminal] address

interrogation request which has been transferred; and

means for registering, in a memory of the server, a corresponding relationship

between the first address and the second address in a place designated by an index value

which is calculated based on a value of the first address or the second address[, in the

server].

54.(amended) The server according to claim 53, wherein when the server receives the

answer including the second address corresponding to the first address from the one of the plurality of terminals, the registration means deletes a corresponding relationship, referred to least recently, when the server can not accommodate a corresponding relationship between the first address and the second address, and registers the corresponding relationship between the first address and the second address[, of] which [it has been notified] is included in the [server] answer.